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10/710,314	07/01/2004	Leonard Shaner	81100061 / FMC 1755 PUS	4313

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EXAMINER
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SPISICH, GEORGE D

ART UNIT	PAPER NUMBER
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3616

MAIL DATE	DELIVERY MODE
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05/03/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/710,314

Applicant(s)

SHANER ET AL.

Examiner

George D. Spisich

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14 and 16-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear to relate the airbag to an occupant's body portion (in amended claim 1 and 13) or to a testing dummy (claim 21). These relations may change depending on the occupant or standards in testing.

Furthermore, in claim 8, line 4, there is claimed "inhibiting loading on the thorax of the occupant". Due to the amendment of claims 1 and 13 which includes the limitation "inhibiting coverage of a lower arm", it is now unclear what is meant by "inhibiting", since it would appear that the thorax is protected and the lower arm of the occupant may not be (for a smaller occupant).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or

Art Unit: 3616

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,3,6,7 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Kai et al. (USPN 7,108,278).

Kai et al. discloses a side airbag (1) apparatus (see at least Figs. 5-7) comprising a generally wedge shaped side aspect when deployed, narrowing from a posterior region to a forward region, thereby inhibiting loading on the thorax of an occupant of the vehicle seated adjacent the deployed airbag, and an inflator (2) mounted to a portion of the seat and cooperating with the airbag to supply gas thereto, thereby facilitating deployment of the airbag. Due to the broad language of "at least a portion" of the bottom edge and the term "wedge shaped", the airbag of Kai et al. includes a tapering portion (in side view, the forward half of the airbag) that has "a portion" of the bottom edge extending forward and upward from the posterior edge. It includes a triangular portion (not claimed to be the entire side of the airbag). Given this "sub" portion, there is a posterior and forward area of this sub-portion.

The airbag (1) (as at least shown in Fig. 10) shows what is well known in the airbag art, to provide a reinforced region (any area of the airbag) for providing additional strength to the airbag.

The airbag of Kai et al. includes a vent (near 4) for deflation of the airbag. It is well known in the airbag art to include a vent in an airbag.

Art Unit: 3616

The airbag of Kai et al. includes a broad "wedge" shaped top aspect (as best shown in Fig. 6), which narrows for a posterior region to a front region, since the airbag tapers to a somewhat pointed front end.

With respect to claim 21, the airbag of Kai et al. would appear to meet the spatial relations claimed, as best understood by the Examiner.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2,8,9,12-14 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kai et al. (USPN 7,108,278) in view of Zhao et al. (USPN 9,991,257).

Kai et al. has been discussed in the prior rejection. However, the airbag of Kai et al. does not have a wedge shape rear aspect.

Zhao et al. (as shown in at least Figs. 4A and 4B) shows a side airbag having a generally wedge shaped rear aspect narrowing from an upper region to a lower region. This shaped would provide more protection in the upper torso/upper arm region of an occupant.

Art Unit: 3616

It is well known in the airbag art to have various shapes for airbags that provide protection in a variety of vehicle locations and with respect to parts of a vehicle occupant's body as deemed necessary.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the airbag of Kai et al. so as to provide a wider portion of the airbag towards the upper portion of the airbag and a tapering portion towards the lower portion (where impact with the occupant's torso is not critical) so as to provide a wedge-shaped rear aspect as taught by Zhao et al. so as to provide enhanced protection for an occupant seated adjacent the deployed airbag.

Claims 4,5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kai et al. (USPN 7,108,278) in view of Keshavaraj et al. (USPN 6,344,251).

Kai et al. has been discussed in a prior rejection. However, Kai et al. does not show the airbag comprising a polymeric material of at least 600 denier or the inflator configured to inflate the airbag to at least 25 pounds per square inch.

Although Examiner maintains that it is well known in the art to use a known fabric of desired strength and an inflator that provides adequate inflation for occupant protection, Examiner is further relying on Keshavaraj et al. for this teaching.

Keshavaraj et al. (see col. 2, lines 45-67) discloses the use of a polymeric material having up to 840 denier and compatible with inflation of (col. 1, lines 50-52) pressures as high as 50 psi.

Art Unit: 3616

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use any known material and inflator characteristics in the airbag arrangement of Kai et al. such as one having the parameters and that is disclosed by Keshavaraj et al. since providing a strong airbag would be more durable and provide enhanced protection for the occupant seated beside the airbag.

Claims 10,11,16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kai et al. (USPN 7,108,278) in view of Zhao et al. (USPN 6,991,257) as applied to claims 8 and 13 above, and further in view of Keshavaraj et al. (USPN 6,344,251).

Kai et al. in view of Zhao et al. has been discussed in a prior rejection. However, neither Kai et al. or Zhao et al. show the airbag comprising a polymeric material of at least 600 denier or the inflator configured to inflate the airbag to at least 25 pounds per square inch.

Although Examiner maintains that it is well known in the art to use a known fabric of desired strength and an inflator that provides adequate inflation for occupant protection, Examiner is further relying on Keshavaraj et al. for this teaching.

Keshavaraj et al. (see col. 2, lines 45-67) discloses the use of a polymeric material having up to 840 denier and compatible with inflation of (col. 1, lines 50-52) pressures as high as 50 psi.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use any known material and inflator characteristics in the airbag arrangement of Kai et al. in view of Zhao et al. such as one having the parameters and that is disclosed by Keshavaraj et al. since providing a strong airbag would be more durable and provide enhanced protection for the occupant seated beside the airbag.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-7, 13, 14 and 16-21 have been considered but are moot in view of the new ground(s) of rejection.

Due to some new rejections being made in this Office Action that were not necessitated by Applicant's amendment of 2/15/07, this Office Action is Non-Final.

Examiner would like to clarify the positions in this Office Action.

Due to the language (that was present in the originally filed claims), the claimed limitations that the airbag is "wedge-shaped", and a "portion" of the airbag includes particular structural limitations, the prior art properly meets these limitations. A wedge is a broad term that is met by any shape having a portion that tapers as a wedge. Furthermore, the claims have included the language "a portion" or "a region" that is sufficiently broad so as to allow Kai et al. to read on the claims. Applicant has not claimed particular shapes of the aspects of the airbag or the locations of the widest portions of the airbag so as to only read on an airbag having the upper most or rearward most portion of the airbag to be the



Art Unit: 3616

widest portion of the airbag with the remainder of the airbag tapering in both a forward and downward directions and defining a wedge shaped profile when viewed from the top, rear and side.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fisher et al. (USPN 5,667,243).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George D. Spisich whose telephone number is (571) 272-6676. The examiner can normally be reached on Monday-Friday 9:00 to 6:30 except alt. Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

George D. Spisich  
April 29, 2007



 4/30/07  
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